

ABSTRACT OF THE DISCLOSURE

Embodiments of organic-polymer-based memory elements that are stable to repeated READ access operations are disclosed. Organic-polymer-based memory elements can suffer cumulative degradation that occurs over repeated READ access operations due to the introduction of electrons into the organic-polymer layer. In general, entry of electrons into the organic-polymer layer generally lags initiation of a hole current within the organic-polymer layer following application of a voltage potential across the memory elements. Therefore, stable memory elements can be fabricated by introducing electron-blocking layers and/or limiting the duration of applied voltages during READ access operations.